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Chiral S-stannyl dithiophosphates and dithiophosphonates on the basis of monoterpenols

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Abstract

Copyright © 2018 John Wiley & Sons, Ltd. Chiral S-tributylstannyl dithiophosphates and dithiophosphonates were obtained by the reactions of optically active dithiophosphoric and dithiophosphonic acids containing (S)-(–)-menthyl and (R)-(+)-menthyl substituents with gaseous ammonia and tributyl chlorostannane. The reactions of chiral ammonium dithiophosphate containing (1R)-endo-(+)-fenchyl substituent with tributyl chlorostannane or tetrachlorostannane result in corresponding S-tributylstannyl dithiophosphate or tetrakis(dithiophosphato)stannane. Molecular structure of ammonium O,O-di-(-)-menthyldithiophosphate was studied by X-ray single crystal diffraction. Bactericidal activity of S-tributylstannyl dithiophosphates was tested.

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Keywords

bactericidal activity, dithiophosphates, dithiophosphonates, monoterpenyl alcohols, stannyl derivatives

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